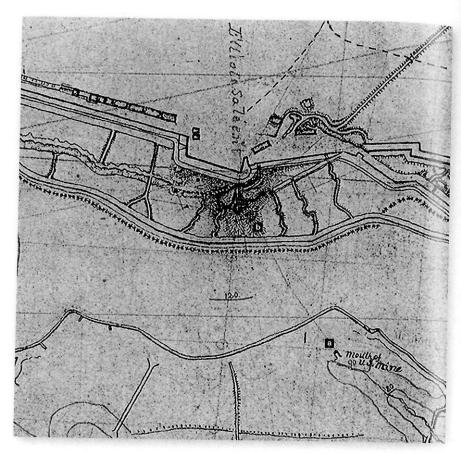
The course of the tunnelling from the mouth of the mine to Elliott's Salient is indicated on this 1865 map by a faint pencil line (a–b). (Author's collection)



PLANNING FOR THE BATTLE

As the mining operation neared its conclusion, and seemingly against all the odds, Burnside realized a plan was needed for an assault after detonation of the explosives. His choice to spearhead the attack was the Fourth Division, IX Corps, commanded by Brigadier General Edward Ferrero. Born in Spain to Italian parents, Ferrero was a colourful character and the subject of much derision among fellow officers for having been a dancing instructor before the war. His division consisted of two brigades of African-American troops recently recruited in Maryland, Ohio, Pennsylvania and Connecticut to make up Burnside's corps. Not actively engaged after Grant and the Army of the Potomac moved south of the James, the Fourth had been charged with the duties of guarding ammunition trains and serving as a labour force for almost the entire army since its arrival in Virginia. For example, the records of Company B, 43rd USCT for June of that year stated: "Followed in the rear of the Army doing picket duty and guarding wagon trains until the Army crossed the James River on June 18. Since that time the company has been engaged in throwing up entrenchments, building forts, and doing picket duty on the flanks of the Army."

Ferrero prepared and trained his division for the attack as best he could, and was advised by subordinate officers that they were confident the African-American troops would give a good account of themselves. Brigadier General Henry G. Thomas, commanding the 2nd Brigade, recorded, "We were all pleased with the compliment of being chosen to lead the assault. Both officers



Born in Spain in 1831, Edward Ferrero ran a dancing school established by his father in New York City before the Civil War, and was also active in the state militia, commanding the 51st Regiment by 1861. He led his regiment at Roanoke Island and New Bern through 1861–62, and was promoted to command the 2nd Brigade, 2nd Division, North Carolina in April, receiving the rank of brigadier general in September, 1862. Transferring west, he was given charge of the 2nd Brigade, 2nd Division, Army of the Ohio, and by August 1863 commanded the First Division, IX Corps, Army of the Ohio. He returned east in April 1864 in time to lead the newly recruited African-American Fourth Division, IX Corps, at Petersburg. (Library of Congress LC-B811-3333B)

and men were eager to show the white troops what the colored division could do. We had acquired confidence in our men. They believed us infallible. We had drilled certain movements, to be executed in gaining and occupying the crest. It is an axiom in military art that there are times when the ardour, hopefulness, and enthusiasm of new troops, not yet rendered doubtful by reverses or chilled by defeat, more than compensate, in a dash, for training and experience."

Burnside ordered Ferrero and his brigade commanders to the advanced trenches to locate areas where he could concentrate his force and inspect the ground it would have to cross during the attack. The resulting plan as devised by Ferrero in consultation with Burnside consisted of a lightning thrust by a tight column of two brigades which would approach the front line via covered ways and after deployment debouch from the trenches to force a breach through the crater created by the explosion. This formation would then undertake a complicated maneuver in which the regiment at the head of the right brigade would wheel to the right to drive out the Confederate forces to the north, while its counterpart leading the left brigade would perform the same task to the south. The remainder of the column would drive on to capture the high ground behind the Confederate line, which consisted of a rise about 400 yards to the northeast and close to the small township of Blandford. On the summit of this hill was a small brick-built church with a cemetery, which gave it the name "Cemetery Hill" in subsequent battle reports. Once in possession of this key ground, with support from other divisions of the corps, the African-American Fourth Division would sweep on to capture Petersburg itself.

Meanwhile, the Union high command dithered regarding whether the attack should go ahead or not. By the end of July 1864 Meade considered the mine explosion and ensuing infantry assault to be the best hope of a breakthrough. Earlier in the month, he had preferred a plan by General John G. Barnard, Chief Engineer of the Armies in the field on Grant's staff, to target the Confederate trenches in front of Warren's V Corps line, employing a mass attack preceded by a bombardment of 100 guns. When this plan failed to develop, he reluctantly decided to support Burnside's mine assault.



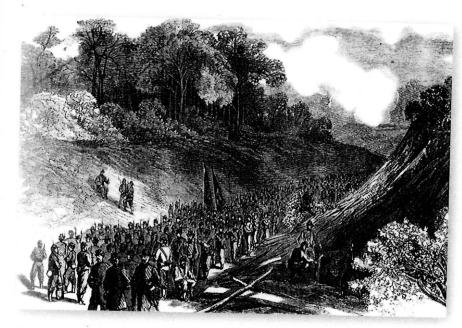
James Hewitt Ledlie was a civil engineer before the Civil War. Born in New York in 1832, he was commissioned a major in the 3rd New York Artillery on May 22, 1861, and was promoted to lieutenant colonel and colonel respectively on September 28 and December 23, 1861. Receiving the rank of Brigadier General, USV, on December 24, 1862, he became Chief of Artillery under Major General John G. Foster, Department of North Carolina. With the expiration of his commission in March 1863, he was re-appointed in October of that year and given command of the First Division, IX Corps on June 9, 1864. Following his failure in command during the Battle of the Crater, Grant described him in his Memoirs as "being otherwise inefficient, proved also to possess disqualification less common among soldiers". Ledlie resigned his commission on January 23, 1865, and resumed his career as a successful civil engineer. (US National Archives NWDNS-111-B-4461)

However, relationships quickly deteriorated between the two officers, Burnside was Meade's senior in rank and in 1862 had held his post in command of the Army of the Potomac. While Burnside accepted the situation, Meade was not so agreeable or courteous. Matters deteriorated when Burnside requested command of forces supporting the IX Corps during the assault. Meade rejected this request outright, believing that Burnside was overstepping his authority. Meade next meddled with Burnside's attack plan, which was modified at the last minute. In a meeting with Grant, Meade suggested that if the African-American division led the attack and it failed, it would give the impression that they were being used as "cannon fodder." Such criticism had been the case when the 54th Massachusetts spearheaded the unsuccessful attack on Battery Wagner, in Charleston Harbor, on July 18, 1863. In his after-battle report, Brigadier General R.S. Ripley, the Confederate commanding officer of the fort, had stated, "The enemy had put the poor negroes, whom they had forced into an unnatural service, in front, to be slaughtered." Indeed, Grant recalled later of the decision made at the last minute on July 28, 1864, "General Meade said that if we put the colored troops in front (we had only one division) and it should prove a failure, it would then be said, and very properly, that we were shoving these people ahead to get killed because we did not care anything about them. But that could not be said if we put white troops in front."

Inexcusably, Burnside only learned of the change of plan at about 11 a.m. on the day before the attack, when Meade arrived at his headquarters accompanied by General Edward O.C. Ord, and informed him that Grant had concurred with his opinion. Requested to replace the force trained to make the initial assault, Burnside overcame his anger and disappointment, and acquiesced graciously stating, "Very well, General, I will carry out this plan to the best of my ability." The troops now designated to lead the attack would have to come from his three battle-weary white divisions. Unable to make a clear choice, and, to his detriment thereafter, Burnside asked the three divisional commanders concerned to draw lots, and Brigadier General James H. Ledlie, commanding the First Division, drew the short straw.

On paper, Robert B. Potter and Orlando Willcox were the more experienced generals, while Ledlie was the most recent arrival to the IX Corps. In fact, he was the worst possible choice to lead what could potentially have been one of the most critical charges of the war. While the troops under his command had acquitted themselves with bravery during the fighting at Petersburg on June 17, and in an unauthorized attack on Confederate fortifications at Ox Ford on July 26, Ledlie was drunk on both occasions, and was seemingly incapable of going into combat without being inebriated. To his credit, Burnside was unaware of these failings. However, Grant was well aware of them, having been responsible for transferring Ledlie to the Army of the Potomac from North Carolina on June 9, 1864. For whatever reason, Grant did not share this knowledge with Meade, Burnside, or anyone else, until after the assault on the crater.

Meade issued orders for the IX Corps to be massed for the attack during the early hours of July 30, 1864. Burnside was advised to have the trenches to his front cleared of obstructions so that his troops could quickly debouch. However, he did not follow this advice as it would serve as a warning to the Confederates that an attack was imminent. Pioneer units armed with axes and spades were to lead the way clearing abatis and wire entanglements from the path of the advancing troops. The V and XVIII Corps were readied to



Some of the 5,000 troops of the Union V Corps who took part in the attack await orders to advance in support of the IX Corps following the detonation of the mine on July 30, 1864. (Author's collection)

follow up the initial assault, which was to commence with the detonation of the mine at 3.30 a.m. At that time, Ledlie's division would burst through the resulting crater and make for Cemetery Hill, while Willcox would advance to protect his right flank and Potter would perform the same duty on his left. Ferrero's African-American division now had the task of waiting in reserve until the other divisions had cleared the way, after which they would follow Ledlie's path and possibly occupy Blandford.

Once the matter of which troops were to spearhead the attack was settled, there remained the problem of concentrating the thousands of men needed on too small a space of ground in preparation for zero hour. By 9 a.m. on July 29, elements of the IX Corps began to form in the trenches and covered ways opposite Cemetery Hill. According to Major Charles Houghton, 14th New York Heavy Artillery, the rank and file understood the importance of the work ahead: "The men were cautioned to prevent the rattling of tin cups and bayonets, because we were so near the enemy that they would discover our movements. We marched with the stillness of death; not a word was said above a whisper. We knew, of course, that something very important was to be done and that we were to play a prominent part." Waiting in the trenches occupied by the 3rd New Hampshire, Captain Eldridge J. Copp noted, "Daylight approaches, and yet no sound except the usual firing upon the picket line in our front, and on along the whole line to our left until the sounds are lost in the distant." Still standing after hours, some officers permitted their men to lie down, and many fell into a fitful slumber. By 3.30 a.m. Ledlie's division was in place, with the Second Brigade, commanded by Colonel Elisha G. Marshall, in front, and that of General William F. Bartlett ready to follow up behind it. Daylight came slowly, and still they waited with nerves strained as they prepared to move forward when the order was given.

The Confederate line opposite the IX Corps was held by the division of Major General Bushrod Johnson, with Ransom's North Carolina brigade, commanded by Colonel Lee McAfee, to the north. A South Carolina brigade commanded by Colonel Stephen Elliott stood at the centre, while Wise's Virginia brigade under Colonel Thomas J. Goode, manned the trenches to

the south. Elliott's South Carolinians were posted around the salient under which the mine was dug, with the 26th, 17th, 18th, 22nd and 23rd regiments arranged from left to right. Five companies of the 22nd South Carolina, manned the actual salient, with the 17th and 28th South Carolina to their left and the remainder of the 22nd, 18th and 23rd South Carolina to their right. A battery composed of four Napoleon 12-pounders was also situated in the fort, manned by the Virginia battery of Captain Richard G. Pegram.

THE ASSAULT BEGINS

As dawn approached, the massed formations consisting of about 9,000 men of the IX Corps, supported by 8,000 troops with the XVIII Corps, a further 5,000 in the V Corps, and a division of the X Corps, awaited the signal to begin the attack. Burnside arrived at his advanced headquarters, known as the "Fourteen Gun Battery," or Fort Morton (after engineer officer Major James St Clair Morton killed on June 17 near that location), at about 2 a.m. About 600 yards behind the centre of the IX Corps lines, it provided a good view of the ground over which the action would take place. Meade and staff occupied Burnside's regular headquarters at about 3.15 a.m., and shortly before the scheduled detonation of the mine. Situated centrally with good telegraphic communications, it was about a mile from the trenches where the IX Corps was massing, and nothing could be seen of what would take place in the Crater from that point.

The electromagnetic telegraph had been developed by Samuel Morse during the 1840s, and had become a vital aspect of the communication system of the US Signal Corps since June 1861. Its correct use during the action that followed might have produced a model example of post-Napoleonic warfare. However, this turned out not to be the case. Although Meade used the telegraph to continually request updates on the progress of proceedings leading to the attack, Burnside consistently refused to respond. As a result, what could have helped achieve victory simply exacerbated the tension between the two commanders.

As Meade set out for Burnside's HQ, he had a telegraphic message relayed to Burnside stating that, due to the extreme darkness of the early morning, he could delay the detonation of the mine until it became lighter. In disagreement with this decision, Burnside failed to send a reply via the telegraphic operator in Fort Morton, and went ahead with the original plan and timing. But as the minutes ticked by, and the deadline for detonation passed and nothing happened, Burnside remained impossible to contact. Believing at first that the delay was caused by a miscalculation in the timing of the fuse, he dispatched an aide-de-camp to the mineshaft to establish the cause. Meanwhile, Meade became increasingly concerned at the lack of communication. Joined by Grant, he also sent an aide to Burnside to find out what was going on, but the aide did not find his way back. Finally, at 4.15 a.m., Meade used the telegraphic wire again to send a message urgently requesting a reason for the delay. As there was nothing to report, Burnside again did not respond, and continued to ignore a further telegraphed dispatch to the same effect. Becoming infuriated at Burnside's stubborn refusal to take advantage of a state-of-the art communication system, Meade sent a further message stating that if the mine was not going to be detonated, he would make other arrangements for an attack anyway. Once again, Burnside refused to respond. At this point, Meade finally ordered a general assault, whether the